Winter 2005

CEG 460/660-01: Introduction to Software Computer Engineering

Robert J. Weber
Wright State University - Main Campus

CEG 460 / CEG 660 Introduction to Software Engineering

Winter Quarter 2005

Wright State University

Course Description

This course is concerned with the techniques of designing and constructing large programs. Some of the required basic concepts necessarily have to be developed using small programs as examples. To this extent, we also study programming-in-the-small. The overall objectives are to present an overview of issues in the development of software, to discuss terminology, to illustrate via example case studies, and to give sufficiently detailed advice on how to develop quality software. Hands-on experience is emphasized through the use of homework and a class project.

Professor

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Text

Bernd Bruegge and Allen H. Dutoit, *Object-Oriented Software Engineering: Using UML, Patterns, and Java, 2nd Edition*, Prentice Hall, 2004.

Textbook Errata

Prerequisites

CS400 or CS600

Links

- UML Notation Chart
- Software Engineering Code of Ethics (IEEE Computer Society)
- UML Tools (many are open source, free, and even some of the costly tools have trial or evaluation versions). I recommend you consider SPARX software's enterprise architect fully-functional evaluation tool.
- Textbook Companion Website

Grading Policies

Grades will be weighted as follows:		**Course grades will be assigned based on total weighted percentage scores as follows[1][1]:**	
Homework	15%	A:	92-100,
Project	25%	B:	84-91
Midterm	30%	C:	75-83
Final Exam	30%	D:	65-74
		F:	below 65

Homework is individual student work - you should not work with others on these assignments. Homework that has obviously been copied will be given a grade of zero. Ten percent (per day) will be deducted for unexcused late homework. No credit will be given for homework turned-in after solutions are presented.

The project will be accomplished in teams of three or more (depending on class size). You may request your partner(s), but the instructor makes final team assignments. More detail on the project will be handed out later.

[2][1] **Grades may be further curved at instructor discretion**

Schedule

Week	Day	Date	Topic	Text / Readings
1	Tue	1/4/2005	Introduction / Intro Survey	Chapter 1
	Thu	1/6/2005	Modeling with UML	Chapter 2
2	Tue	1/11/2005	Software Life Cycles / Project Assignment	Chapter 15
	Thu	1/13/2005	Project Organization and Communication / Project Management	Chapter 3 and Chapter 14
3	Tue	1/18/2005	Requirements Elicitation	Chapter 4
	Thu	1/20/2005	Requirements Analysis - Analysis Object Models	Chapter 5 (Part 1) Yahtzee Example
4	Tue	1/25/2005	Requirements Analysis - Dynamic Models	Chapter 5 (Part 2)
	Thu	1/27/2005	System Design: Decomposition	Chapter 6
5	Tue	2/1/2005	Midterm Review	Review Slides
	Thu	2/3/2005	**Midterm Examination** (In-class)	Chapters 1-6, 14, and 15
6	Tue	2/8/2005	System Design: Design Goals	Chapter 7
	Thu	2/10/2005	Object Design: Patterns, Interfaces	Chapters 8 & 9
7	Tue	2/15/2005	Midterm Exam Summary Design Patterns	Chapter 8.4
	Thu	2/17/2005	Object Design: Patterns Implementation	Chapter 8.4 Chapter 10
8	Tue	2/22/2005	Testing	Chapter 11
	Thu	2/24/2005	Testing / Maintenance	Chapter 11 / Handouts
9	Tue	3/1/2005	Configuration Management	Chapter 13
	Thu	3/3/2005	Methodologies	Chapter 16 / Handouts
10	Tue	3/8/2005	Catch up; review	Comprehensive
	Thu	3/10/2005	Project Presentations	None
11	Thu	3/17/2005	**Final Examination**	Comprehensive